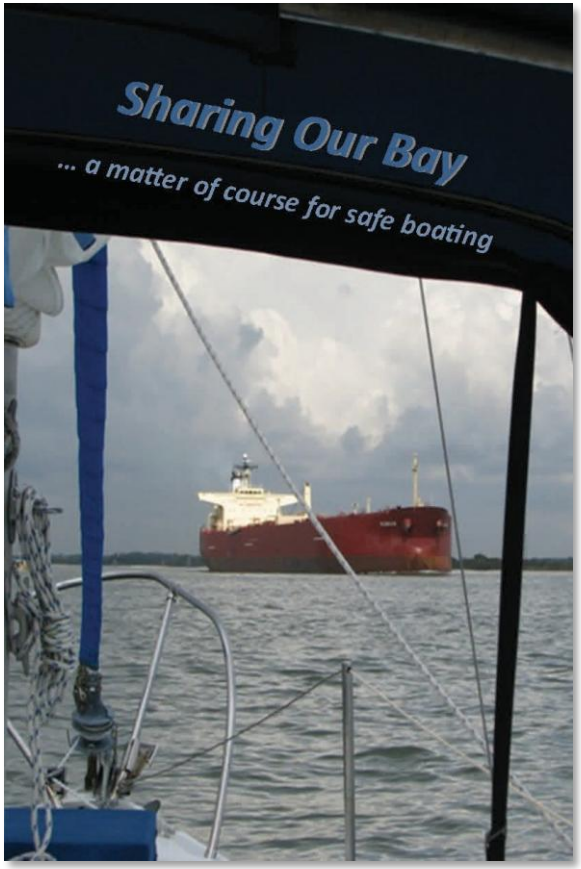


Sharing Our Bay…

Information for Recreational Boaters

More and more people are boating on Galveston Bay! According to a study by the U. S. Coast Guard (USCG), Americans are enjoying boating activities in record numbers, with more than 85 million people participating in boating activities in recent years and with 11.67 million registered recreational vessels in 2024. Not surprising is the fact that Galveston Bay is the third largest boating center in the country!

Most people feel that safety is a concern for the other guy: "It will never happen to me!" While boating is, in fact, a relatively safe recreational activity when considering its immense popularity, it can also appear deceptively easy and safe – and not just to novice boaters. Operator inexperience is a leading cause in about one in four fatalities, while operator inattention is the primary cause of all accidents.

So, regardless of your level of experience – whether you're just starting out, or you've been boating your entire life – know your limits, always follow the basic safety precautions, and become familiar with the information described in the following pages.

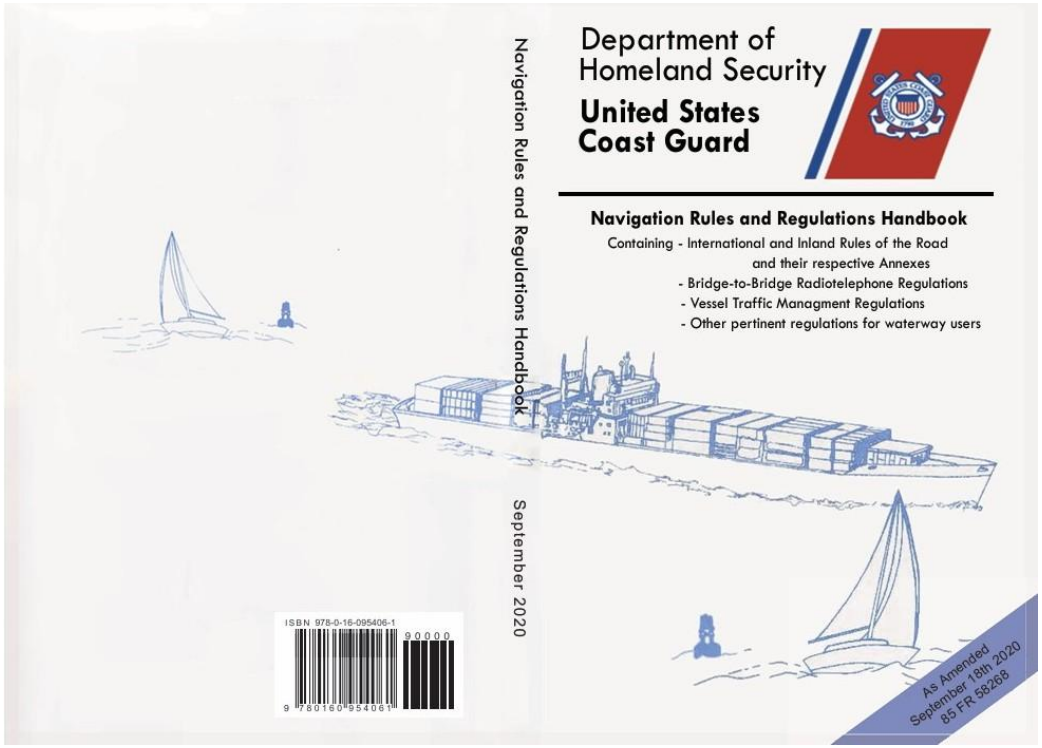
What the Commercial Marine Industry Wants Boaters To Know

Rule 9 of the Unified or Inland Navigation Rules forbids recreational craft (including sailboats) from impeding the transit of vessels that are restricted to a narrow channel. This rule is for your protection and safety. The obligation is on the small boat operator to stay clear of draft-restricted commercial vessels. This is the LAW. Violators can be assessed a maximum civil penalty of up to $5000 by the USCG.

Commercial vessels (ships and tows) operate 7 days a week, 24 hours a day in all types of weather, extensively using radar and other electronic navigation equipment. If not similarly equipped and trained, a recreational boater should not take the chance of navigating in marginal weather conditions.

The speed of a ship or tow can be deceptive. A ship can be traveling as much as 15 knots in the **Houston Ship Channel** (**HSC**), and even faster in deep ocean water.

Large vessels can take a few miles to come to a complete stop. Most commercial vessels must maintain a speed of 6 to 8 knots to maintain steerage and they must also remain near the center of the narrow HSC channel. It is the only place deep enough for them in Galveston Bay. The ships and tows transiting Galveston Bay waters can be 1150 feet long and 160 feet wide.

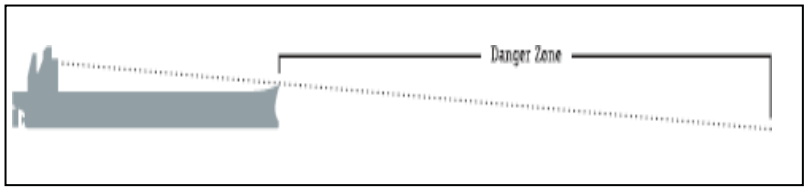


Visibility

The “blind spot” of a vessel forward of the bow can extend from a few hundred feet to several thousand feet on deep-draft container ships. Additionally, these large vessels will have a blind spot off of their beam. You should always be aware of these blind spots, and plan maneuvers so as to avoid being in them!

When you “disappear” into a blind spot the ship pilot can only *guess* what your intentions are, and then also worry if you are going to emerge from the blind spot in one piece!!

Ships are NOT able to stop in time to avoid hitting you, and they also are NOT able to maneuver around you in the narrow commercial navigation channels.



The Houston Ship Channel configuration

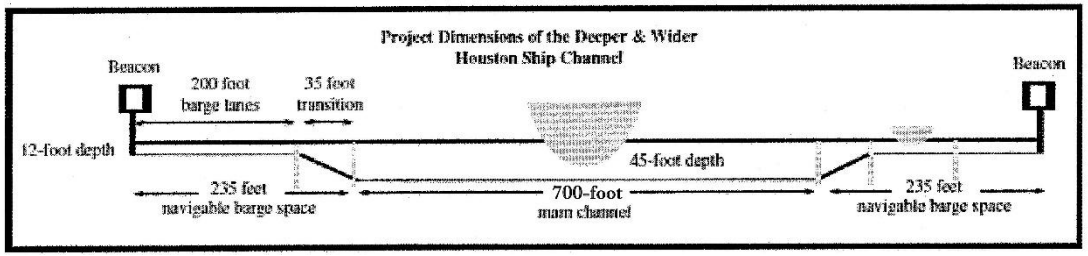
The deep-draft HSC in Galveston Bay is now 700 feet in width. In addition to the deep channel there are "barge lanes" on both sides of the channel in the open bay between Bolivar Roads and Morgans Point. The ATON beacons are set out approximately 1000 feet apart, and all are generally in a minimum of 12 feet of water. These barge lanes provide safe lanes for barge (tow) traffic to transit in the shallower area of the channel separated from the deep-draft ships.

Recreational vessels, when transiting the HSC, are *highly* encouraged to utilize the barge lanes! There is no reason at all to be out in the deep part of the channel!! Even tows however generally do travel faster than at least sailboats, and so sailboats *especially* need to be alert to tow traffic possibly sneaking up behind them! Keep a VHF watch on both channels 16 and 13 so that commercial traffic can contact you if necessary.

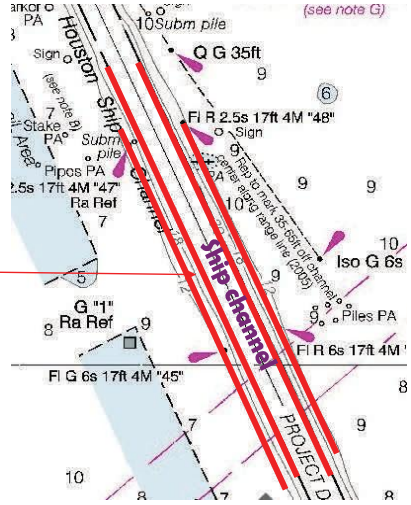
Note 1: Even when in the barge lanes, travel as close to the beacons as practical. And if things suddenly get "crowded" with commercial traffic, be prepared to move outside of the beacons. There is still generally the same amount of water there, and when things have gotten less crowded you can move back inside the marked channel.

Note 2: Shrimpers also like to be in the barge lanes, with fishing being particularly good right on the edge of the deep channel. And since they often make course changes without warning, and it is not at all sure that they will answer your VHF call, do keep alert to what they are doing, all while you are looking out for those overtaking tows!

Note 3: It is possible to make transits to and from Galveston *without* entering the HSC at all, and such routes are very desirable and much safer! (Please see information on these Alternate Routes below.)



Barge lanes are the areas at the sides of the Houston Ship Channel shown here in red.
If you must transit the HSC, use the barge lanes to keep clear of deep draft vessels.
(re: also Alternate Routes described below)



Communications

Commercial vessels transiting the HSC will probably not be monitoring channel 16. **VHF channel 13 is the BEST channel to contact any commercial traffic transiting the HSC.** VHF channel 13 should be used when necessary to communicate with ships and tows, but also used sparingly! Don't forget to always use low wattage on this channel.

Note 1: Pilots aboard all ships answer to "unit numbers" and not usually to the ship's name. Each pilot has a unique number which, unless you know that from monitoring one of the VTS channels, you will not otherwise know. Just do your best to reach them. If the ship's name does not work, try using their position in the channel to get them to answer.

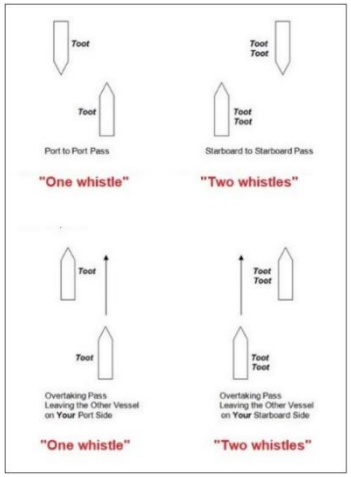
Note 2: Tows anywhere east of Bolivar Roads answer on VHF channel 13, but west of Bolivar Roads (all the way down coast) they answer on VHF channel 16.

VHF Channels and their Designated Use

16	Hailing and emergencies. Use to call other boats, the Coast Guard, marinas, and bridges.
9	Hailing and emergencies. Use to call other boats, the Coast Guard, marinas, and bridges.
13	Ship-to-ship. Used primarily by commercial vessels. Towboats may use CH 13 or CH 16 as a hailing channel. Along the Texas Coast, towboats generally monitor CH 13 east of Pelican Cut, and CH 16 west of Pelican Cut.
10	Ship-to-ship. Used primarily by commercial vessels and bridges. Towboat captains will often ask you to switch to CH 10 to discuss passing situations. (Used by the Galveston Causeway RR Bridge)
68, 69, 72, 78	Ship-to-ship, or ship-to-shore. "Conversation channels" used to talk to other boats, or to stations on shore. (Channel 72 is for "Ship-to-Ship" only.)
22A	Coast Guard channel used to communicate with vessels in distress, and for various marine broadcasts. NOTE: When the Coast Guard says "Channel 22 Alpha" they mean the channel that is designated just "22" on you radio.
11	Vessel Traffic Service (VTS), between HSC lights 33-34 and 121-122
12	Vessel Traffic Service (VTS), below HSC lights 33-34 to the Galveston Sea Buoy
21A	Vessel Traffic Service (VTS), above HSC lights 121-122 to the Turning Basin
73	Galveston/Texas City Pilots – Working channel for Galveston Harbor and TC channel
74	Houston Pilots -Working channel for the HSC
71	Commercial shrimpers north of Texas City Dike and in the Mid-Bay area
88	Commercial shrimpers in Texas City channel and Galveston Harbor

Understanding Whistle Signals and VHF Communications on Passing and Overtaking

Whistle signals were once how vessels communicated their passing and overtaking intentions with each other, and were used only when vessels were in sight of one another. If you do hear a whistle, check and see if it is intended for you. If unsure, try contacting the vessel on VHF channel 13.



Meeting Situations

One blast means passing port to port. "I intend to leave you on my port side."

Two blasts means passing starboard to starboard. "I intend to leave you on my starboard side."

Overtaking Situations

One blast means overtaking the slower vessel on its starboard side.

Two blasts mean overtaking the slower vessel on its port side.

Five or more short blasts on the whistle indicates that the commercial vessel(s) are concerned about a dangerous situation. Stay clear and give a wide berth to vessels sounding the danger signal. Also, ensure they are not sounding the danger signal to you!!

VHF: Nowadays whistle signals have been mostly replaced by VHF radio communications, between commercial vessels themselves, and also between yourself and these vessels, and especially so in the GIWW (ICW). Use your VHF radio to make meeting and passing arrangements with vessel captains, and make sure that such arrangements are *crystal clear* before making a move.

Local VHF Terminology

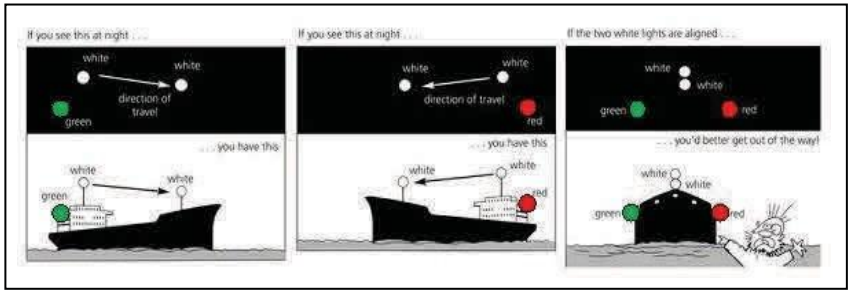
"See you on the one" or **"One Whistle"**: Port to Port passing arrangement for vessels meeting.
"See you on the two" or **"Two whistles"**: Starboard to Starboard passing arrangement for vessels meeting.
"Come around you on the one": A vessel arranging with another vessel to overtake them on their starboard side.
"Come around you on the two": A vessel arranging with another vessel to overtake them on their port side.

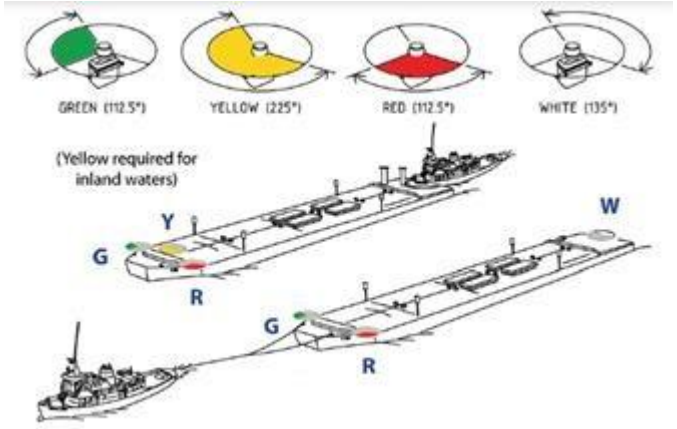
Do *always* make sure, if you are not all that conversant in this terminology, that in any meeting/overtaking arrangements you make you are *crystal clear* with your intentions! You might do well to confirm your passing intent by saying something like, for example: "Yes, on the two, I will be overtaking you on your port side."

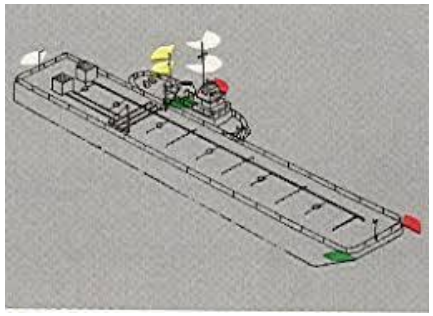
Know Ships' Lights

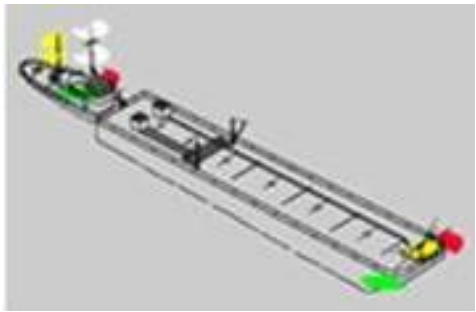
Navigational lights can tell you a lot about a ship's size and type. As well as red port and green starboard running lights, large ships will also display white range lights fore and aft. If you see both colored lights and the range lights in a line – you are dead ahead and should MOVE OUT FAST.

The two white lights forming a central range on a vessel are excellent indicators of its relative heading as seen from your vessel. These lights will normally be seen well before the colored side lights.







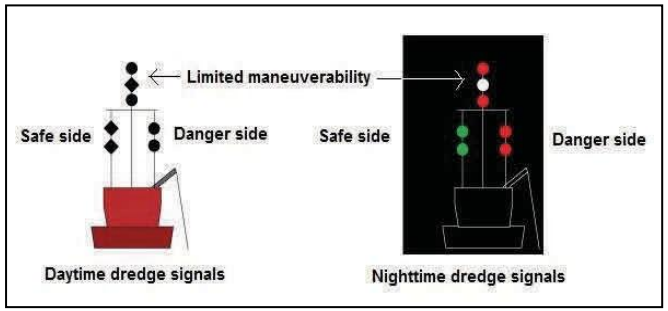


- Note the yellow light on the bow of the lead barge of single or multi-barge tows. This configuration is common on our waterways.

Dredges

Dredges are almost always working somewhere on the HSC and on other commercial channels, and they generally are working 24/7! In addition to the whistle signals mentioned above, it is important that recreational boaters know the day shapes and night-time lighting patterns for dredges that indicate the "safe side" for passing and also the "danger side" for no passing. The "safe side" to pass the dredge will be marked by two black diamonds (daytime) or two green lights (night-time).

Never pass a dredge on the "danger side", which is two black balls (daytime) or two red lights (night-time)!!!



And if you are unclear about the visual signals, *never* pass a dredge until you have confirmed passing instructions with the dredge-master on VHF channel 13.

Dredging operations involve a considerable number of support vessels that are necessary to move the dredge, relocate anchors and anchor balls, and place dredging pipe and connecting flanges. These vessels are constantly on the move 24-hours a day performing these tasks, as well as ferrying personnel and supplies. Slow down, keep a close lookout, and be prepared for sudden maneuvers by the workboats. Better still, give all dredging operations as wide a berth as possible!

Miscellaneous

- Very small-craft vessels and other recreational users of the waterway should be alert to the possibility of large swells, or even large breaking waves, in the shallow waters near the sides of the HSC deep channel astern of passing ships. This situation is caused by huge volumes of water displaced by a passing ship being pushed over the old shallow spoil areas on the sides of the channel. If caught in this situation in a small boat, remain calm and seated. Turn the boat and head into the swells at a 45-degree angle to avoid being swamped. Larger vessels can go into the waves head on, but you might wish to make sure that all hatches are closed!

- Be cautious near any area where there is a turn in the ship channel. Vessels are altering course to keep in the deep channel, and since it can take awhile for a large ship to begin their turn, and even longer for the ship to stop its swing, it is thus very important to give a wide berth to all commercial traffic.

- If you are on the water at night, make sure that your navigational lights are correctly configured, and are bright and not obscured by sails, flags or other equipment. Consider having a radar reflector installed on your boat and having additional light(s) available (that do not interfere with your navigational lights) to call attention to your location and situation. If using a searchlight, do not shine it on to the bridge of other vessels. Blinding an operator with a searchlight is dangerous and illegal.

- Get out of the way early when meeting commercial traffic so as to leave no doubt of your intentions. The best rule is to always make an early, and substantial, change of course or speed to make your intentions clear to other vessels. This is even more important for a sailboat because of its slower speed. Remember, a large vessel will blanket all wind from a sailboat if the boat gets too close to the ship. A large vessel must take evasive actions at a further distance off to be effective, and then it can have a difficult time correcting back.

- "Wheel wash" or "suction" is a strong underwater current caused by ships, harbor tugs, or towboats that can result in severe turbulence hundreds of feet around a large vessel. This "suction" can cause a small vessel to get pulled into the aft quarter of a ship. Stay clear of the stern, and the wheel wash, of ships and tugs and towboats at all times!!!

- Keep well clear of two ships meeting in the HSC as they will use up the entire channel during and after this maneuver.

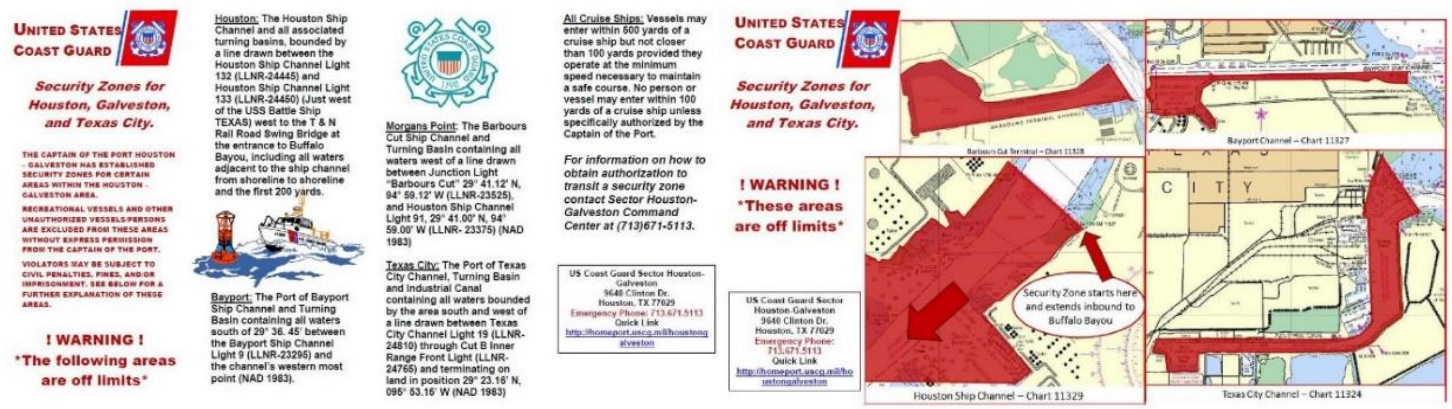
- Give a wide berth to ships and tows that are berthing or going into anchorages. The propeller wash from such maneuvering vessels, or the tugs assisting them, can flip a small boat.

- Beware that a towboat without barges in front could be towing objects (such as dredge pipe) astern of the vessel on a long line that may be hidden underneath the water.

- Stay well clear of any marine casualty, incident, or spill. Wakes from small craft can hamper rescue or containment operations. Listen on your radio for information and directives from the Coast Guard.

- If you are offshore out near the sea buoy, be aware that ships can make large turns in order to "make a lee" to pick up or drop off a harbor pilot. In addition, a pilot boat will be operating in the immediate area, so it necessary to stay well clear.

- There are areas of Galveston Bay which are covered by **USCG Security Zones**. You may **not** enter these security zones at any time without written permission from the Coast Guard. For more information on security zones, please click on the links below.



Access to the Security Zone flyer shown above describing the locations of these four security zones: for the **Houston Ship Channel** (boundary near the San Jacinto Monument and the Battleship Texas), and for the **Barbours Cut Terminal**, and the **Bayport Ship Channel**, and the **Texas City Channel** is available at: https://lonestarhsc.org/dir/wp-content/uploads/2018/09/USCG-Security-Zones-HouGalvTxCity.pdf

Note: For those sometimes traveling down to Freeport, there are several Security Zones located there also. Access to that flyer is available at: https://lonestarhsc.org/dir/wp-content/uploads/2018/09/USCG-Security-Zones-Freeport.pdf

Recommended Equipment to be Onboard to Further Increase Safety

It is strongly recommended that your vessel be equipped with the following equipment which will enhance the safety of your boating trips, as well as the overall safety of the HSC.

- GPS and/or chart plotter – Knowing your vessel's exact location, and how to navigate to your destination, are attributes of these devices that can keep you safer on the water.

- VHF radio – A VHF is your basic communication tool within the maritime community on the HSC and area waters. There are many handheld units available, but a built-in unit at your helm station is the most advisable set-up. But its purpose will be limited if you don't have it turned on and monitoring the proper VHF channels!

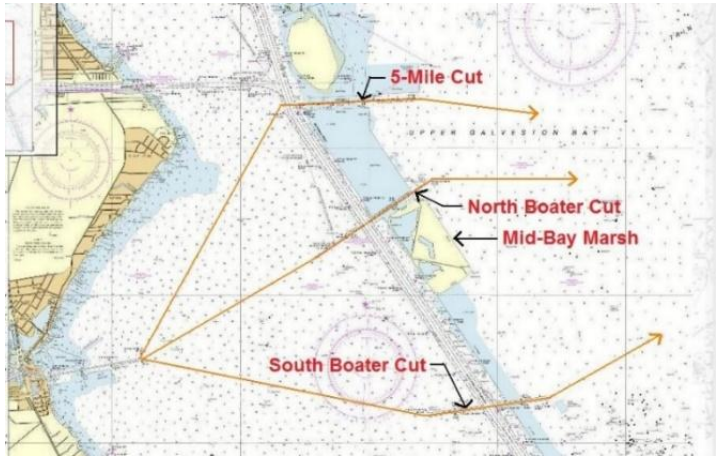
- Class B AIS units – These units allow other vessels, commercial and otherwise, to identify your vessel, and also enable you to identify them. Vessel names, locations, descriptions, courses, speeds, and other available data make communicating with other vessels much easier than in the past.

- Charts - NOAA charts, or others as appropriate.

Note: As time has passed, internet alternatives to some of the devices mentioned above have become available, and on everything from laptops, to tablets, to smart phones. Electronic navigation programs on these devices can provide the same information found on traditional chart plotters, AIS units, and traditional paper charts. Programs such as Polaris Navigation GPS and MX Mariner can provide amazing on-the-water navigation capabilities and web-base AIS programs such as **VesselFinder.com** and **MarineTraffic.com** can allow you to identify other vessels out there (although they cannot see you with these two programs). An online NOAA ENC Chart Locator can be found at: https://nauticalcharts.noaa.gov/enconline/enconline.html
And a historical raster chart of Galveston Bay can be downloaded from: https://www.historicalcharts.noaa.gov/jpgs/11327-03-2017.jpg
Do make use of this new online technology if your vessel is lacking often-expensive built-in systems.

Navigating Galveston Bay in and around the Houston Ship Channel

Use the marked/lighted boater cuts to cross the HSC into Trinity Bay. There are 3 of them: The **South Boater Cut** (just north of HSC markers 61 &62), the **North Boater Cut** (just south of HSC markers 71 &72), and **5- Mile Cut** (just north of HSC markers 75 &76). These are marked Federal channels that will safely take you across the HSC, but always keep a sharp lookout for oncoming inbound or outbound ship and tow traffic. **Note:** Oncoming traffic may be traveling much faster than you think, and so never try to "make it across" unless you are *totally* sure that it is safe. It is always better to just hold up and wait for the commercial traffic to pass than to take a chance! (And consider what if you should have a propulsion problem when half-way across!) Avoid getting those "five blasts", or worse!!!

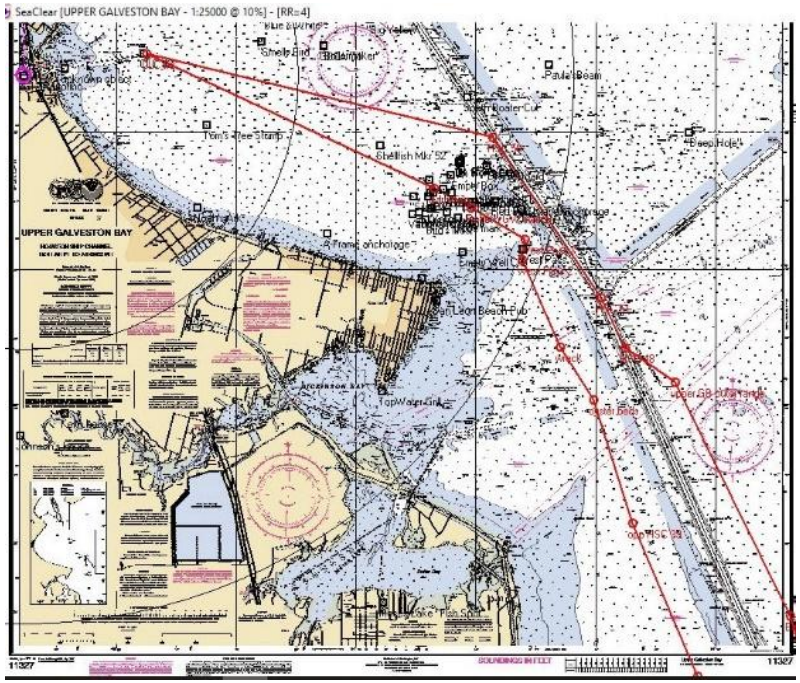


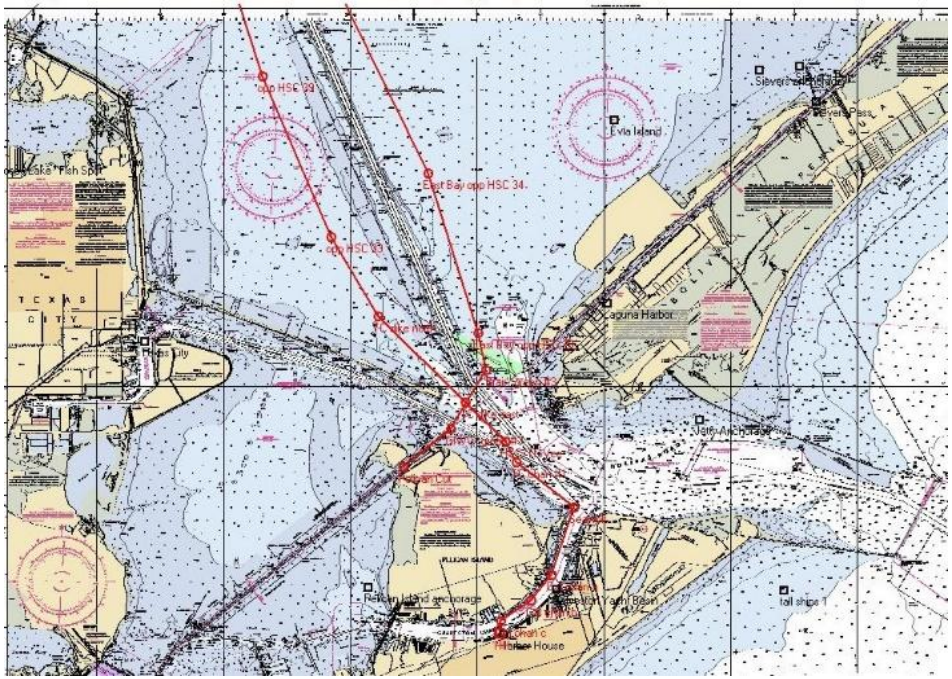
Cruising to Galveston from the Clear Lake area: If you need to operate in the HSC (in the previously described barge lanes only!), you can safely enter the HSC via the South Boater Cut, or one marker south of that at HSC 59. Due to shoaling and obstructions, avoid entering the HSC anywhere south of HSC 59!

Alternate Routes:

It is not however necessary to stay in the HSC all the way to Galveston! Once inside the HSC north of Redfish, it is generally safe to migrate out of the channel into **East Bay** on the *red* side anywhere south of HSC 50. From there you can run parallel to the HSC all the way south to Bolivar Roads. This is known as the **"East Bay Route"**. Do however stay at least a half-mile or so away from the edge of the HSC so as to avoid any shoal areas and also possible *large breaking* waves created by ship wakes passing over those shoals.
For the link to the **East Bay Route**, click **here.**

And there is a second very safe alternate route to Galveston where you do not have to enter the HSC at all! This is known as the **"West Pass Route"** and it starts out just south of Redfish Island where you go through a small gap in the Redfish Island Shoal called "West Pass". From there, similar to the East Bay Route, just run parallel to the HSC about a half-mile or so west of the green HSC markers. You will end up near the tip of the Texas City Dike, and from there can either enter the GIWW or head the rest of the way into Galveston. For the link to the **West Pass Route**, click **here.**





Bolivar Roads: This the intersection of the HSC, the Texas City Channel, and the GIWW, and is one of the busiest maritime traffic intersections in the world!

Stay outside of the marked navigation channels, post a *very* sharp lookout, and be prepared to communicate on your VHF.

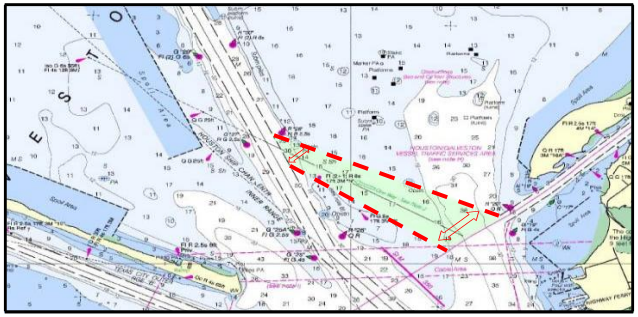
Know where you are, and what you are doing, when navigating through this area!

Bolivar Roads Inbound Route ("BRIR")

If you do happen to be cruising to or from Galveston in the HSC barge lanes, you may possibly encounter tows coming westbound out of the GIWW at Bolivar and kind of taking a "shortcut" as they turn northbound into the HSC. This can be a bit surprising if you are not aware of what is going on!

What they are doing is taking the "Bolivar Roads Inbound Route" (BRIR) which was created to allow tows heading inbound to Houston to avoid the Bolivar Roads/Houston Ship Channel intersection and having to make the difficult 105-degree turn at the actual intersection. As such it kind of acts like a "freeway on-ramp" until the tow can merge into the HSC at light 28. And even though this route was originally created for "inbound" vessels only, it is now also sometimes utilized by outbound HSC tows who are intending to turn into the GIWW heading eastbound.

So don't be startled when you see tows which appear to be out of either the HSC or GIWW channels, but who are taking the BRIR!



Emergency Information

Types of VHF Emergency Broadcasts that you can make, or may hear, on channel 16

.

"MAYDAY, MAYDAY, MAYDAY" – Distress call of the highest priority indicating that a person, vessel, or aircraft is threatened by grave or imminent danger and requires immediate assistance.
"PAN PAN, PAN PAN, PAN PAN" – Urgency call concerning the safety of a ship, aircraft, or person.
"SECURITE, SECURITE, SECURITE" – General safety call concerning the safety of navigation and weather warnings.

Emergency Phone Numbers

US Coast Guard Sector Houston/Galveston - Command Center	281-464-4851	(VHF 16)
US Coast Guard Sector H/G - Waterways Management (ATONS)	281-464-4891	
US Coast Guard Sector H/G - Marine Safety Unit Texas City	409-978-2700	
US Coast Guard National Response Center	800-424-8802	
US Coast Guard 8th District (New Orleans)	504-589-6225	
VTS (Vessel Traffic Service)	281-464-4837	(VHF 05A / 11 / 12 / 21A)
America's Waterway Watch	877-249-2824	
Chambers County Sheriff's Office	409-267-2500	
Clear Lake EMS	281-332-2426	
Clear Lake Shores Police	281-538-0659 (x2)	
Galveston County Sheriff's Office	409-766-2322	
Harris County Sheriff/Marine Division	281-471-4782	
Kemah Police	281-334-5414	
Lakeview - El Lago Police	281-326-5900	
League City Police	281-332-2566	
Nassau Bay Police	281-333-4200	
National Weather Service	281-337-5074	
Seabrook Police	281-291-5610	
SeaTow	281-557-4117	
Texas Parks & Wildlife Response Division	281-842-8100	
TowBoat/US (Seabrook)	281-474-4600	
TowBoat/US (National)	800-391-4869	

Things to Remember

Think before you drink. Never operate a boat when under the influence of alcohol. Remember that for boat operators, the federal blood alcohol standard is .04, OR HALF OF THE TEXAS STANDARD for driving an automobile.

Be alert. Keep a lookout. Watch over your shoulder for commercial traffic.

Use VHF radio channel 13 for bridge-to-bridge communications when on the HSC.

Be seen, especially at night. Use proper lights and consider deploying a radar reflector. Have a flashlight or searchlight ready to use in signaling your position.

Wear a life jacket (PFD) at all times, properly fitted and fastened. Over 78% of those killed in boating accidents were not wearing life jackets. They do save lives!

Learn the navigation "Rules of the Road" and abide by them.

Avoid traveling the deepest portion of the HSC. The outer edges (barge lanes) are deep enough for small craft.
NEVER anchor in or near the Houston Ship Channel.

Keep in mind the economic significance of commercial shipping to the local Houston economy, as well as the entire state of Texas.

The ship channel takes up less than 1% of Galveston Bay. The other 99% is for the recreational boaters to enjoy. Together we can share Galveston Bay in a safe and environmentally compatible manner.

FIVE OR MORE BLASTS OF SHIP'S WHISTLE MEANS
DANGER!

Have a great time, but be Responsible!

Phone Numbers, websites and additional references that may be of assistance to you.

USCG Sector Houston-Galveston **281-464-4800 (main number)**
https://www.atlanticarea.uscg.mil/Our-Organization/Heartland-District/Units/Sector-Houston-Galveston/
866-539-8114 (command center)

USCG MSU Texas City **409-978-2700**
https://www.facebook.com/USCoastGuardMSUTexasCity/

USCG VTS (vessel traffic service) **281-464-4837**
https://navcen.uscg.gov/sites/default/files/pdf/VTS%20User%20Guides/VTS_HG_UserManual_2025.pdf

USCG Auxiliary (Flotilla 6-3 Seabrook)
http://wow.uscgaux.info/content.php?unit=081-06-03

USCG Auxiliary (Flotilla 6-8 Galveston)
http://wow.uscgaux.info/content.php?unit=081-06-08

USCG Auxiliary (Flotilla 6-2 Houston)
http://wow.uscgaux.info/content.php?unit=081-06-02

Houston Pilots **713-645-9620**
www.houston-pilots.com

Galveston/Texas City Pilots **409-941-1300**
www.galvestonpilots.com

National Weather Service Houston/Galveston **281-337-5074**
https://www.weather.gov/hgx/

Port Houston **713-670-2400**
http://porthouston.com/

Lone Star Harbor Safety Committee
http://www.lonestarhsc.org/ (And specifically: https://lonestarhsc.org/resources/recreational-boater-resources/)

Security Zones for the Houston Ship Channel / Barbours Cut / Bayport / Texas City
https://lonestarhsc.org/dir/wp-content/uploads/2018/09/USCG-Security-Zones-HouGalvTxCity.pdf

Security Zones for Freeport
https://lonestarhsc.org/dir/wp-content/uploads/2018/09/USCG-Security-Zones-Freeport.pdf

America's Waterway Watch Brochure
https://lonestarhsc.org/dir/wp-content/uploads/2018/09/Americas-Waterway-Watch.pdf

Houston Sail and Power Squadron (HSPS) **713-303-8049**
https://americasboatingclubhouston.org/

Galveston Bay Sail and Power Squadron (GBSPS) **281-326-3481**
https://www.usps.org/index.php/sss-home

Texas Mariners Cruising Association (TMCA)
http://www.texasmariners.com/

Galveston Bay Foundation **281-332-3381**
https://galvbay.org/

USACE Galveston District Operations Dashboard (dredging activities)
https://experience.arcgis.com/experience/d4ba5e6561334e259297f0a50bc47127

NWS Coastal Marine Forecasts
https://www.weather.gov/marine/hgxmz

NOAA Tide Predictions
https://tidesandcurrents.noaa.gov/tide_predictions.html

PORTS® (Physical Oceanographic Real-Time System)
https://tidesandcurrents.noaa.gov/ports/index.html?port=hg

And again, for additional documents of interest to recreational boaters, please review files located on **Recreational Boater Resources** tab of the **Lone Star Harbor Safety Committee** website at: https://lonestarhsc.org/resources/recreational-boater-resources/

This document is intended only as a supplement to other sources of information. If you are not educated about boating safety, please consider taking a boating course.

The publication was originally developed in 2011 with the support of generous sponsors (below).
It is currently maintained by representatives to the **Lone Star Harbor Safety Committee** (www.lonestarhsc.org) for the purpose of educating, and providing information to, recreational boaters as they share the area waterways with the commercial maritime industry.

Revised: September 2026